

$^{11}\text{B}(\gamma,\text{n}),(\gamma,\text{p}),(\gamma,\text{d}),(\gamma,\text{t}) \quad 1970\text{So03}, 1976\text{Kn04}$ 

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu		NP A880, 88 (2012)	1-Jan-2011

**1958Me77:**  $^{11}\text{B}(\gamma,X)$ .**1965Ha19:**  $^{11}\text{B}(\gamma,xn)$   $E\gamma \approx 6\text{-}30$  MeV, measured activation curve using bremsstrahlung, obtained  $\sigma(E)$  with  $\Delta E=0.5, 1.0$  MeV.**1969Mu10:**  $^{11}\text{B}(\gamma,n\gamma),(\gamma,p\gamma)$   $E < 35$  MeV, measured  $\sigma(E, E_\gamma)$ .  $^{11}\text{B}$  deduced No  $T_{3/2}$  giant resonance.**1969So06:**  $^{11}\text{B}(\gamma,P)$   $E=15\text{-}31.5$  MeV, measured  $\sigma(E)$ . Deduced integral  $\sigma$ .  $^{11}\text{B}$  deduced resonances.**1970So03:**  $^{11}\text{B}(\gamma,P)$   $E < 16.5, 18.5$  MeV, measured  $\sigma(E_P, \theta)$ .  $^{11}\text{B}$  levels deduced  $\Gamma$ -level,  $J, \pi$ ,  $\gamma$ -multipolarities.**1971Du11:**  $^{11}\text{B}(\gamma,N),(\gamma,P)$   $E=12\text{-}19$  MeV, analyzed giant resonance structure.**1971Pa10:**  $^{11}\text{B}(\gamma,n\gamma),(\gamma,p\gamma)$   $E < 35$  MeV, measured  $\sigma(E, E_\gamma)$ .  $^{11}\text{B}$  deduced giant resonance isospin splitting.**1975Ad04:**  $^{11}\text{B}(\gamma,P)$   $E=100\text{-}800$  MeV bremsstrahlung, measured  $\sigma(E)$ .**1979Ka26:**  $^{11}\text{B}(\gamma,n\gamma)(\gamma,p\gamma)$   $E(\max)=30$  MeV, measured  $E_\gamma, I_\gamma$ .  $^{11}\text{B}$  deduced decay channels for giant dipole resonance.**1981Br28:**  $^{11}\text{B}(\gamma,N),(\gamma,P)$   $E=15\text{-}31$  MeV bremsstrahlung, measured yields,  $\sigma(E_P)$  vs  $\theta$ . Deduced  $\sigma(\text{total})$ .  $^{11}\text{B}$  deduced GDR isospin splitting.**1983IsZU, 1983IsZV:**  $^{11}\text{B}(\gamma,t)$   $E=20, 32$  MeV bremsstrahlung, measured  $\sigma(E_\gamma)$ . Deduced reaction mechanism.**1984Al22:**  $^{11}\text{B}(\gamma,n\gamma)(\gamma,p\gamma)$   $E=16\text{-}28$  MeV bremsstrahlung, measured  $\sigma(E), \sigma(\theta)$  vs  $E$ .  $^{11}\text{B}$  levels deduced  $J, \pi$ .**1988Du04:**  $^{11}\text{B}(\gamma,d)$ , calculated  $\sigma, \sigma(E)$ . Deduced reactions correlation. $^{11}\text{B}$  Levels

E(level)	Comments
$9.19 \times 10^3$	$\Gamma$ : from (1958Me77). $(2J+1)\Gamma_\gamma \approx 0.8$ eV from $^{11}\text{B}(\gamma,\alpha)$ (1958Me77).
$12.4 \times 10^3 \dagger$	
$13.1 \times 10^3 \dagger$	
$13.65 \times 10^3 \dagger$	
$14.75 \times 10^3 \dagger$	
$15.1 \times 10^3 \dagger$	
$15.5 \times 10^3 \dagger$	
$15.85 \times 10^3 \dagger$	
$16.2 \times 10^3 \dagger$	
$16.5 \times 10^3 \dagger$	
$16.9 \times 10^3 \dagger$	
$17.5 \times 10^3 \dagger$	
$20.2 \times 10^3 \dagger$	
$21.6 \times 10^3 \dagger$	
$23.2 \times 10^3 \dagger$	
$24.5 \times 10^3 \dagger$	
$25.5 \times 10^3 \dagger$	
$26.5 \times 10^3$	E(level): from $(\gamma,n)$ In (1976Kn04). $\Gamma$ : broad.
$27.7 \times 10^3 \dagger$	
$29.2 \times 10^3 \dagger$	

<sup>†</sup> From  $(\gamma,p)$  In (1970So03): also see for  $\Gamma_\gamma$  and  $J^\pi$ .